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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,073	10/04/2001	Michael David Wilk	267/204	4545

7590 03/10/2004

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EXAMINER

TIBBITS, PIA FLORENCE

ART UNIT	PAPER NUMBER
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2838

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/972,073	Applicant(s) WILK ET AL.	
	Examiner Pia F Tibbits	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14, 15, 24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24 and 25 is/are allowed.
- 6) ☒ Claim(s) 14 and 15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant is advised that the Notice of Allowance mailed July 8, 2003 is vacated. If the issue fee has already been paid, applicant may request a refund or request that the fee be credited to a deposit account. However, applicant may wait until the application is either found allowable or held abandoned. If allowed, upon receipt of a new Notice of Allowance, applicant may request that the previously submitted issue fee be applied. If abandoned, applicant may request refund or credit to a specified Deposit Account.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by **Matsuura** [4024413].

Matsuura discloses in figures 2-4 a failure detection system for an energy storage cell of a multiple energy storage cell pack, the energy storage cell having a cell voltage V_{cell} the system comprising: an electrical circuit connected to the energy storage cell 1 and indicating a cell active condition when a cell voltage V_{cell} is above a threshold active voltage V_{active} /predetermined value V_1 , and indicating a cell inactive condition when the cell voltage V_{cell} drops below the threshold active voltage V_{active} /predetermined value V_1 , and the circuit including a voltage threshold device 3 to set the threshold active voltage V_{active} /predetermined value V_1 [see also column 2, lines 6-18 and lines 67-68; column 3, lines 1-20].

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Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Matsuura**, as described above, in view of **Nelson et al.** [hereinafter Nelson][4100469].

Matsuura discloses a failure detection system for an energy storage cell of a multiple energy storage cell pack including a voltage threshold device. Matsuura does not disclose the voltage threshold device being a zener diode.

Nelson discloses in fig.3 a zener diode being used as a voltage threshold device [see also column 6, lines 30-38]. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Matsuura's apparatus and replace the voltage threshold device with a zener diode, as disclosed by Nelson, in order to be able to maintain a highly stable reference voltage [see also IEEE, 7th edition].

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Allowable Subject Matter

7. Claims 24 and 25 are allowed. With respect to claims 24 and 25: none of the references of record prior to applicant's filing date discloses, teaches, or suggests an active voltage limiting and failure

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detection system for an energy storage cell of a multiple energy storage cell pack, the energy storage cell having a cell voltage V_{cell} , the system comprising: **a first electrical circuit** drawing a significant amount of power from the energy storage cell, which will stop drawing the significant amount of power to reduce the cell voltage V_{cell} when the cell voltage V_{cell} reaches a minimum voltage V_{min} .

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, as best as it can be understood at this time. The prior art cited in PTO-892 and not mentioned above disclose related apparatus, as best as it can be understood at this time: **Pollitt** [3757302] discloses a power failure detection system that automatically monitors the supply voltage to indicate a power fail condition. Fig.1 describes the supply voltage as one input of a comparator 20, while a reference voltage provided by a zener diode Z2 supplies the other input.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Pia Tibbits whose telephone number is (703) 308-7305. If unavailable, contact the Supervisory Patent Examiner Mike Sherry whose telephone number is (703) 308-1680.

10. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0956.

Papers related to Technology Center 2800 applications only may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center Fax Center number is (703) 308-7722 or (703) 308-7724.

PFT

February 25, 2003



Pia Tibbits

Patent Examiner



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FEB 23 2004

In re Application of WILK ET AL.

Appl. No.: 09/972,073

Filed: October 04, 2001

For: VOLTAGE THRESHOLD AND ENERGY
STORAGE CELL FAILURE DETECTION
SYSTEM FOR POWER SUPPLY

**WITHDRAWAL FROM
ISSUE**

37 CFR 1.313

The purpose of this communication is to inform you that the above-identified application is being withdrawn from issue after payment of the issue fee due to the unpatentability of one or more claims. See 37 CFR 1.313(b)(3).

The issue fee and publication fee are refundable upon request. The applicant may request a refund, or may request that the fee be credited to a deposit account. However, applicant may wait until the application is either again found allowable or held abandoned. If the application is allowed, upon receipt of a new Notice of Allowance and Issue and Publication Fee Due, applicant may request that the previously submitted issue fee and publication fee be applied toward payment of the issue fee and publication fee in the amount identified on the new Notice of Allowance and Issue and Publication Fee Due. If the application is abandoned, applicant may request either a refund or a credit to a specified Deposit Account.

Telephone inquiries should be directed to Michael Sherry, Supervisory Patent Examiner, at (703) 308-1680.

The application is being forwarded to the examiner for action.

Richard K. Seidel

Director

Patent Examining Technology Center 2800

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